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Sreeram Duvvuru

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MHKKG/Oracle (Sun)

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EXAMINER

CHANKONG, DOHM

ART UNIT

PAPER NUMBER

2452

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 09/896,244	Applicant(s) DUVVURU, SREERAM	
	Examiner DOHM CHANKONG	Art Unit 2452	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This non-final rejection is in response to Applicant's request for continued examination. Applicant amends claims 1, 2, 10, 11, 19, and 20. Accordingly, claims 1-27 are presented for further examination.

I. CONTINUED EXAMINATION UNDER 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 2/3/2010 has been entered.

II. RESPONSE TO ARGUMENTS

Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection which was necessitated by Applicant's amendment to the independent claims.

III. CLAIM REJECTIONS – 35 U.S.C. § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Art Unit: 2452

A. Claims 10-18 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The broadest reasonable interpretation of “computer readable storage medium” typically covers forms of non-transitory tangible media and transitory propagating signals *per se* (signals can be interpreted as “storing” instructions as they are propagated between computers).

Applicant may generally overcome this interpretation by clearly defining what is meant by “storage medium” and limiting the term to only non-transitory embodiments. However, merely providing examples (e.g., “storage medium may include memory, floppy disks, RAM, ROM...”) is not the same as limiting the interpretation to particular embodiments.

Applicant’s specification merely provides possible embodiments of a “medium” and does not limit the interpretation to only non-transitory embodiments. Therefore, under the broadest reasonable interpretation, claims 10-18 are non-statutory. This rejection may be overcome by amending the claims to read “non-transitory computer-readable storage medium.”

IV. CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 2452

2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- A. **Claims 1, 2, 4, 5, 7, 9, 10, 11, 13, 14, 16, 18-20, 22, 23, 25, and 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Patel* et al, U.S. Patent No. 6.865.185 ["*Patel*"], in view of *Win* et al., U.S. Patent No. 6.453.353 ["*Win*"], in further view of *Lupu* et al., "Use of Roles and Policies for Specifying and Managing a Virtual Enterprise," Research Issues on Data Engineering: Information Technology for Virtual Enterprises, pgs. 72-79.**

All citations are to *Patel* unless otherwise expressly noted.

Claims 1, 10, and 19

As to claim 1, *Patel* as modified by *Win* discloses a computer-implemented method for providing differentiated quality of service in an application server, comprising:

a server system receiving a request [Figure 1 | column 12 «lines 6-10»], wherein said request includes a current user role [*Win*, column 6 «lines 44-48 and 58-65»: user sending a request with a cookie identifying the user roles to the server]; and

in response to receiving the request:

accessing pre-determined policy data [column 3 «line 62» to column 4 «line 2» | column 7 «lines 20-26» : inserting labels that indicate FEC where the FEC identifies QoS/policy parameters | column 13 «lines 46-61» : policy base maintaining QoS policies subscribed to by the end user];

establishing a quality of service context based on the current user role included in said request and said policy data [column 7 «lines 60-65» | column 12 «lines 6-11» : inserting labels that identify QoS into the packet based on the user identifier & *Win*, column 6 «lines 44-48 and 58-65» & *Lupu*, pg. 2, § 2.1: ODP Definition of a role: "A

role type...may include additional constraints on the behavior, such as policy or Quality of Service (QoS) statements”]; and

propagating said quality of service context with said request in the server system, wherein said propagating comprises sending data indicating the quality of service context with the request [column 3 «line 62» to column 4 «line 2»].

As noted above, *Patel* does not disclose (1) a server system receiving a request that includes a current user role and (2) establishing a quality of service context based on the current user role. However, both features were well known in the art at the time of Applicant's invention as evidenced by *Win* and *Lupu*.

1. *Win* discloses a server receiving a request that includes a current user role.

Like *Patel*, *Win* is directed to a providing applying specific policies for access to resources based on user information [*Patel*, Fig. 7 | column 13 «lines 46-61» & *Win*, column 5 «lines 44-46»] However, *Win* further discloses a user request that includes a current user role.

It would have been obvious to one of ordinary skill in the art to have modified *Patel*'s service requests to include a current user role as taught by *Win*. Such a modification is an example of simple substitution of one known element (*Win*'s user request that contains a role cookie) for another (*Patel*'s user request) to obtain predictable results (*Patel*'s system modified to directly receive user roles to identify which policies to apply to the request, see *Win*, column 5 «lines 44-54»). See MPEP §2143.

2. *Win* and *Lupu* disclose establishing a quality of service context based on the current user role.

While *Patel* discloses establishing a quality of service context based on policy data, *Patel* does not disclose the use of a current user role. As discussed above, *Win* discloses a client

Art Unit: 2452

submitting a request that includes a current user role to a server. However, *Patel* and *Win* do not expressly disclose establishing a quality of service context based on the current user role.

In the same field of invention as *Win*, *Lupu* is directed to resource management of a virtual enterprise [*Win*, abstract: "The registry server controls...a data model...the describes the user, the resources, roles of the user, and functional groups in the enterprise that are associated with the user" & *Lupu*, pg. 1, § 1: Introduction]. In both *Win* and *Lupu*, the roles may be used to impose restraints on the user's behavior.

Lupu further discloses that roles are used to establish a particular QoS context using QoS statements associated with the particular role. Thus, the combination of *Win* and *Lupu* disclose the inclusion of user roles within a request to a server to access particular resources (from *Win*) and the use of the user role to establish particular QoS restraints (e.g., "requirements, capabilities, contracts in terms of error rates, throughputs, delay, etc.") on the user's actions (from *Lupu*).

It would have been obvious to one of ordinary skill in the art to have modified *Patel*'s QoS system to include the user role functionality described above from *Win* and *Lupu*. Such a modification would have provided an improvement to *Patel*'s system because incorporating role-based QoS (as taught in *Win* and *Lupu*) provides a more flexible and extensible way to control QoS in a network [see for example *Win*, abstract | column 2 «lines 26-28»: the user role allows flexibility and extensibility in adding users to the system].

As to claims 10 and 19, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 1. Therefore claims 10 and 19 are rejected for at least the same reasons set forth for claim 1.

Claims 2, 11, and 20

As to claim 2, *Patel* as modified by *Win* and *Lupu* discloses said information further indicates at least one of a user identity [Figure 1 | column 12 «lines 6-10» : each packet containing a flow identifier that indicates a user identity], a requested service, or a time constraint. As to claims 11 and 20, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 2. Therefore claims 11 and 20 are rejected for at least the same reasons set forth for claim 2.

Claims 4, 13, and 22

As to claim 4, *Patel* as modified by *Win* and *Lupu* discloses said establishing a quality of service context is completed at an ingress point [column 6 «lines 39-42»]. As to claims 13 and 22, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 4. Therefore claims 13 and 22 are rejected for at least the same reasons set forth for claim 4.

Claims 5, 14, and 23

As to claim 5, *Patel* as modified by *Win* and *Lupu* discloses said ingress point is at least one of a web server or a protocol manager service within said server system [column 6 «lines 42-44»]. As to claims 14 and 23, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 5. Therefore claims 14 and 23 are rejected for at least the same reasons set forth for claim 5.

Claims 7, 16, and 25

As to claim 7, *Patel* as modified by *Win* and *Lupu* discloses propagating includes inserting said quality of service context adjacent to at least one of a security and transaction

Art Unit: 2452

context [Figure 3 «item 60» : inserting the labels in the header of the packet adjacent to transaction contexts]. As to claims 16 and 25, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 7. Therefore claims 16 and 25 are rejected for at least the same reasons set forth for claim 7.

Claims 9, 18, and 27

As to claim 9, *Patel* as modified by *Win* and *Lupu* discloses a request manager service dispatching said request including said quality of service context to a software component in a plurality of software components based on said quality of service context [Figure 3 «items 32, 36» : the flow manager dispatching packets to various virtual groups based on the QoS context]. As to claims 18 and 27, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 9. Therefore claims 18 and 27 are rejected for at least the same reasons set forth for claim 9.

B. Claims 3, 12, and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Patel* and *Win* and *Lupu*, in further view of *Ayyagari* et al, U.S. Patent Publication No. 2001|0024434 [“*Ayyagari*”].

As to claims 3, 12, and 21, *Patel* as modified by *Win*, *Lupu*, and *Ayyagari* discloses said quality of service context includes information indicating a service class [column 8 «lines 26-28»] and a deadline [*Ayyagari*, 0006: execution of a desired task in a specified time period | 0048: time constraint].

It would have been obvious to one of ordinary skill in the art to have modified *Patel* to include the deadline feature taught by *Ayyagari*. Such a modification is an example of using a known technique (including information indicating a deadline for executing a task) to improve similar systems (both *Patel* and *Ayyagari* are directed to QoS systems) in the same way

Art Unit: 2452

(*Ayyagari* discloses that deadlines in requests are necessary to indicate a “specified time period” for the execution of a desired task). *See MPEP §2143*.

C. Claims 6, 15, and 24 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Patel* and *Win* and *Lupu*, in view of *Zara* et al, U.S. Patent No. 7.206.848 [“*Zara*”].

As to claim 6, *Patel* as modified by *Win* and *Lupu* does not expressly disclose propagating the same quality of service context with a subsequent request. However, such a feature was well known in the art at the time of Applicant’s invention. For example, *Zara* discloses attaching the same quality of service context (“tag”) with a subsequent request related to the first request [column 7 «lines 58-61»]. It would have been obvious to one of ordinary skill in the art to have modified *Patel* to include *Zara*’s teachings. One would have been motivated to include the same tag in subsequent requests to insure that the requests involved in the same session or transaction receive the QoS.

As to claims 15 and 24, they are merely directed to a system that performs the steps of the method of claim 6. Therefore claims 15 and 24 are rejected for at least the same reasons set forth for claim 6.

D. Claims 8, 17, and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Patel* and *Win* and *Lupu*, in view of *Vange*, U.S. Patent Publication No. 20020059170.

As to claim 8, while *Patel* discloses dispatching requests including a quality of service context, *Patel* does not expressly disclose a load balancing service that dispatches the requests to an application server. However, such a feature was well known in the art at the time of Applicant’s invention. For example, *Vange* discloses the claimed feature. Like *Patel*, *Vange* discloses a system whereby a gateway provides clients access to the Internet [*Patel*, Figure 1 &

Art Unit: 2452

Vange, Figure 2]. *Vange* discloses a load balancing service that dispatches requests to an application server in a plurality of application servers, based on said quality of service context [0094 | *Vange*'s claim 1 : where the gateway load balances by "selecting amongst servers of redundant resources a particular server"]. It would have been obvious to one of ordinary skill in the art to have modified *Patel* to include *Vange*'s load balancing capability. One would have been motivated to add such a feature into *Patel* to insure that loads are balanced equally between the servers.

As to claims 17 and 26, they are merely directed to a system that performs the steps of the method of claim 8. Therefore claims 17 and 26 are rejected for at least the same reasons set forth for claim 8.

V. CONCLUSION

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOHM CHANKONG whose telephone number is (571)272-3942. The examiner can normally be reached on Monday to Friday [10 am - 6 pm].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on (571)272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2452

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DOHM CHANKONG/
Primary Examiner, Art Unit 2452